

CHICAGO TIMES

NEWSLETTER OF THE CHICAGO TI-99/4A USERS GROUP

HOPE YOU ENJOYED THE FAIRE
LOOK INSIDE. SEE WHAT YOU
MISSED!!

DECEMBER 1988
EDITOR: Bob Demeter



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Chicago Times

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Contributing artists: Buzz Krantz, Dan Gronowski, Danny Gold
stein, Anne Dhein and BD

GROUP'S HOTLINE 312 755-0051

MEETING DATES

Excluding the Faire, all meetings will be held the first
Saturday of the month. All meetings will be held from 1pm to
3pm in the Community Room of the Brick Yard till further
notice. If you know of a better more convenient place,
please let us know.

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Comments and letters are welcome. We also accept submissions
of original articles and programs.

TI FAIRE/CONVENTION FINAL REPORT

I would personally like to thank everyone for participating in the 1988 TI Faire/Convention, whether it was in the way of helping to produce the event, exhibiting, or attending. It took all of you to make the weekend of November 11th, 12th, and 13th a big success.

For those of you that were not able to attend, let me recap the weekend for you.

People started arriving at the Holiday Inn Rolling Meadows, IL as early as Wednesday the 9th. Mr. Gert Weissmann, from West Germany, and Mr. and Mrs. Albert Vesser, from the Netherlands, arrived Thursday evening and were welcomed by some of the Faire Management Committee.

The Hospitality Suite was opened Friday at noon. Soon more and more vendors, attendees and guests were arriving and collecting in the Hospitality Suite for a friendly TI "Hello" and refreshments.

At 8:00 pm the Social Mixer began in the Woodfield Ballrooms. There were 145 people in attendance, all enjoying drinks at the cash bar and delicious hot and cold hors d'oeuvres consisting of Quiche Tartelettes, Assorted Finger Sandwiches, Sweet & Sour Meatballs, Cheese and Fruit, Relish Tray, Spanish Peanuts, Potatoe Chips and French Onion Dip. Short speeches were given by Hank Ellerman, our President, and Marcy Brun, the Faire Manager. The floor was opened for anyone who wanted to introduce themselves and tell where they came from and what group or company they were associated with. After the introductions, questions from around the room were encouraged for all to answer and participate in the discussion. A raffle of four Faireware Programs was held. The proceeds of this raffle, which was \$126, will be sent to the authors of the programs. The balance of the evening was spent with everyone getting to know one another.

Midnight was the close of an enjoyable Social Mixer. However, the evening was still young for some. For these

people, the hotel's lounge, Feathers, was open with country-western music. Some others went back to the Hospitality Suite to continue their discussions. And I'm sure that there were a lot of other rooms buzzing with TI talk.

7:00 am Saturday morning came early when the exhibitors started moving their equipment into the Chicago Ballrooms to set up for the Faire. By 9:00 am everything was in place to open the doors for the crowd waiting to enter the Faire. There were 53 tables filled with TI and Geneve equipment and programs and other items. These 53 tables were manned by 34 exhibitors. Everyone had a very busy day with attending the fine seminars that were given throughout the day and finding everything they ever wanted for their TI and Geneve computers. The exhibitors were very generous with their donations for door prizes, which were given out all day long. The total attendance at the Faire was 616 persons.

Now mind you, not all people wanted to attend the Faire. Some of the wives enjoyed themselves shopping at the magnificent Woodfield Shopping Mall or taking advantage of the hotel pool, spa, sauna, weight room and game room with their children. Speaking of Children, I hope all the kids had a good time with the hotel staff during Kids Night Out Friday and Saturday evenings.

The Faire closed at 6:00 pm with the exhibitors rushing to pack up whatever was left. They didn't want to miss the celebration dinner which started at 7:00 pm in the Woodfield Ballrooms. The first half hour was enjoyed with a drink from the bar and socializing with each other. Dinner consisting of Cream of Chicken Princess Soup, Salad, Chicken Kiev, Rice, Carrots/Peas, and Cheesecake was served at 7:30 to 128 people attending. After dinner Hank Ellerman, our President, thanked everyone that had helped to produce a very successful 1988 TI Faire/Convention. Marcy Brun gave a "Special Thank You" speech to programmers, vendors, publishers and users of the TI home computer for working together to keep it alive and the importance of future faires around the world. Jane LaFlamme, of the Ottawa TI 99/4a Users Group, presented a special award, to John Kolen, the Publisher of Micropendium. The balance of the evening was spent in celebration of us all meeting together for a mutual interest.

The rest of Saturday night was spent like Friday night.

Everyone going either to retire to their rooms, or dancing in Feathers, or partying in the hospitality Suite, or hacking on computers in some of the other rooms.

Sunday morning started with 12 people meeting at 6:30 am to caravan to the Milwaukee TI Faire, which was only an hour and a half away. Those that didn't have cars were welcomed to ride with others with cars. It was a sight to see the line of cars and vans parading through gas stations and McDonald's for breakfast. We all arrived at the Milwaukee TI Faire together, which made it feel more so like a joining of the two shows.

Once at the Milwaukee TI Faire, we had 36 tables of equipment and software to choose from. These were manned by 30 exhibitors. There were seminars to listen to and door prizes to win throughout the day. The total attendance was 281. 577 tickets were purchased for the special raffle held at the Milwaukee TI Faire. The prizes and winners are as follows: 1st prize was a 96K Ram Disc won by Dennis Wincek of Plymouth, Wisc.; 2nd prize was a 12 inch Amber Monitor donated by 2nd Bytes of West Allis, Wisc. won by Marv Viesselmann of Saukville, Wisc.; 3rd prize was a DSDD 1/2 Height Disc Drive won by David E. Johnson of Milwaukee, Wisc; 4th prize was a 99/4a Computer Console won by David E. Johnson of Milwaukee, Wisc; 5th prize was a 99/4a Computer Console won by Steve Reilly of Menomonee, Wisc.; 6th prize was a TI Base donated by Texaments of Patchogue, NY won by David E. Johnson of Milwaukee, Wisc.; 7th prize was a TI Base donated by Texaments of Patchogue, NY won by John Stepanovich of South Milwaukee, Wisc; and 8th prize was a Designer Labels Program donated by Texaments of Patchogue, NY and won by Beth Walden of Franklin, Wisc.

The 1988 TI Faire/Convention and the 1988 Milwaukee TI Faire were a big success. I would like to thank you all for making them a big success. All the work involved would have been for nothing if all you people from around the world would not have been there. Thank you for attending and letting us share our love for the TI home computer with you. I look forward to seeing all of you at the 1989 TI Faire/Convention.

Marcy Brun, Faire Manager

Nick speaks

The deadline is short this month on articles. The faire was NOV 12 with the deadline for the newsletter 3 days later. Bob will be lucky he has enough to fill 28 pages.

I am going to start this article with my comments on the Faire. The Nov. 12 faire was a huge success it drew more people this year than the previous year. Marcy did a great job organizing the event. Since most articles you will see about the faire will offer the positive leave it to me to give you the analytical view. As stated, this year's faire drew more people but what's the reason for this. Some will say that the interest for the TI is renewing but in my opinion people want to see if the ti has anything new to offer before they upgrade to a IBM or geneve. Offer new programs such as Press and HYper Copy which will best work on the geneve. Hard Disk Controller. If no-one programs for the cards these cards would seem useless. It not because how else can you get a backup made of your cartridges. If I had a choice of buying a P-gram card and Gramulator I would buy the gramulator because of it cartridge port adaption.

I have seen a copy of Asgard News and must take back what I said in the Summer issue of the newsletter. Asgard is trying his best to keep you informed of the TI and may be worth a trial subscription.

I received in the mail today a copy of the WRITERS. Its a guide to TI-WRITER AND IT's CLONES. If you ever wanted to learn the commands of TI-Writer or Funnel-Writer this book is for you. It is available for \$3.50 from Harry Brashear 2753 Main St. Newfrane N.Y. 14108.

Speaking of books, the group still has Hardware Manuals for sale. This book is jam packed with hardware items you can build for your TI. For your copy send \$10.00 to Nick Iacovelli Jr. 1411 N. 36th Melrose Park IL. 60160-2726

ATTENTION AUTHORS if you have a product for sale and you want the Chicago users group to list it. Drop a line to our Newsletter editor Bob Demeter describing your product.

The groups bbs is up and running at 345-4136. I am planning on changing the downloads on a monthly basis. I will be changing the current downloads on the groups bbs on

DEC 15. and on my bbs at 345-4127 on the first of the month.

I still need help with the Library Exchange Program if you wish to help send me your name and adress or get a pack of disk from me at the next meeting.

ATTENTION CHICAGO MEMBERS. here is your change to get well known in the TI community. This year Chicago faire was called a success. Take a chance and run the faire the way you want it, see if you can do it better. Believe me it can be done. Our Faire Chairman Marcy cann't organize next year faire. We need a Suc... VOLUNTEER. I would do it but I think I am doing enough now. Take a chance be the new Faire Chairman.

Members, a few people stated they dont like meeting at the brickyard. The reason for meeting there is that Triton College is rebuilding the college center. We are looking for another place to meet. If you like us to meet near your home check with your local community rooms to see what it would cost to meet there. Remember the size of the group and submit a proposal to the executive board.

ATTENTION IBM USERS, JOIN THE IBM USER GROUP NOW FORMING. CONTACT LARY MACHMAN AT 397-7031

TRADING TIMES

Jerry Pawlowski wishes to sell a TI system. It consists of the following items:

TI Peripheral Expansion System, Myarc RS232 Card, 32K memory card, Zenith Monitor, speech synthesizer, r.f. modulator, joy sticks, modem, word processing, Extended BASIC, Terminal Emulator II, TI Program Recorder, Disk Manager II, games, (Trail, Chess, Parsec, Car Wars), plus TI Games, Programmer Guide, (written by Regena). If anyone is interested in any of the above, please call him at (312)437-1569.

—

Butch Goldstein would like to sell a Myarc 512K RAM disk. He is asking \$200.00 or best offer. You can see him at any of the meetings or call his BBS at 1 312 966-2342.

library shelf

— Bob Deneter —

Well here it is the 15th of Nov. and I'm still trying to settle down from the Faire. Boy what excitement! What crowds! What fun! For those of you that missed it, you missed a biggie. The unofficial attendant count was over 7 or 800. Many vendors sold out their products. And, none went home unhappy. The seminar room looked full every time I walked by it. I understand we even signed up a few new members.

The GALA event of the year was a HUGE success. My most exuberating CONGRATULATIONS to Marcy Brun for a GREAT Faire. Your gallant efforts, knowledge and steadfastness has paid off. You have made the Chicago TI Faire the Premiere Faire of the year. You should be very proud of yourself.

Congratulations are also in order to all that helped put on the Faire. All those people that worked behind the scenes that pulled things together. Congratulations to Sandy Bartles for a Great Social Mixer Friday evening. Thumbs up, a wink and congratulations go out to Don Jones and Mike Cheppell for all the work they did as Faire Assistant and Faire Promotions. A big smile and a hardy congratulations to everyone that jumped in there and volunteered and worked their tail off. We pulled together as a group once again. AND, once again we showed the TI world how to put on a TI Faire.

My special congratulations and a heart pounding THANK YOU go out to all the special people that worked the library table at the Faire. I was overjoyed to see people come and work and then come back for more. Everybody got a break this year. I want to personally thank Bill Hughes, Tom Niemczyk, Laura Heiberger, my little buddy (not so little any more) David Farber, Orlan Degris, Jim Baird, Mike Hehmann, Mario Garza, Charles Stringer and Carol and George Scherer for all their help this year. We couldn't have done it without you. Don't forget, you all have \$25.00 worth of free software coming.

A special special THANK YOU is extended to Bill Hughes and Tom Niemczyk for all the work they did to prepare for the Faire. Over 4000 disks were copied before Faire day. Many sacrifices were made to complete this task. Tom and Bill both have full time jobs. Tom found time to help me tremendously, even though he goes to school 3 days a week. Bill pulled himself away from an injured child to help me. Bill's boy was hit by a car. He spent 8 weeks in the hospital in traction and with a hip pin. I am glad to say he is now home and his

body case has been removed. I know it took great sacrifice to pull away from your loved one to help us out. You have no idea how much I appreciate your friendship and dedication to the group and library. Your efforts will be missed. I hope that I will be able to count on you when in a jam. Thanks for everything, Bill. Tommy, you helped me with the Faire and with the library listing. Like a good neighbor, you were there. Thank you very very much for all your efforts. God love you two.

Someone told me at the Faire that I flow. Well Laura, let's flow into some library news. Those of you that came to the Social Mixer on Friday, got to see some great new Fairware. Unfortunately, there weren't enough systems for me to display them Saturday. Here's what they were all about.

ANIMATIONS - The Comic Strip Show. There are 2 disks with this set. They are by Ray Kazmer and Tom Opheys. You will not believe your eyes when you see these programs. Ray has animations of Garfield and Odie blinking their eyes and moving their mouths. There is also a scary ghost saying BOO while moving his eyes. Then there Pluto wagging his tail and moving his mouth. Tom's efforts has 3 different things. There is the bouncing ball animation. Watch the different sized ball bounce. Or, how about watching Tom have his name stretched across the screen. Last but not least, watch the 3-D boxes rotate on the screen. Watch closely. Are they rotating right or left? All 6 files offer you the option to speed them up or slow them down. Also, they all run from XB. These disks feature some FANTASTIC programming abilities. They are a must for every library. I guarantee you can NOT go wrong getting these disks. Get them now for only \$3.00

CARFAX ABBEY is another great program for the TI. David Vincent has made playing adventure games very easy and less boring. One of the reason I don't play adventure games is they bore me to death reading and typing my every move. CARFAX ABBEY includes full color graphics. And, it's played with a joystick or keyboard. It's the nicest thing being able to move the joystick and see all 4 walls in a room. If there's something in the room, it's automatically yours. No more typing take key, get gold and things like that. When you want to move, just point yourself in the direction and hit the fire button. Watch yourself swish down a hallway. See ghosts pass by you as you travel down corridors. There are 4 levels in the abbey. You pick up and meet different things everywhere. You can access a map to the entire abbey. Or, if you have one, you can read a more detailed map of the floor you're on. The graphics make this one of the nicest games I've seen for the 4A. Pick it up in the library for \$2.00.

I think you 9640 owners will like this next one. It's a sector editor that runs from DOS. It's called FILE-ZAP. Once loaded, it looks something like Norton Utilities for the MS-DOS systems. It displays the HEX and ASCII codes of each sector side by side. By the way, the display is in 80 columns. The display also shows you the filename, sector location and what byte you're at. Editing can be done in

ASCII or HEX. Another M-DOS file to add to your growing collection. We're getting there. A P.D. pgm. only \$2.00.

Our good friend Bill Gaskill has been hard at work developing MICROdex 99. This is version 2.5. Bill has supplied me with a program disk and a library disk. What MICROdex 99 does is keep track of magazine articles. No more leafing through hundreds of magazines looking for a particular article. Just do a search through MICROdex 99. Bill says he has a list of thousands of files. The library disk provided is only to get you started. Those people that pay him for the program will be given access to his library disks. Check this out, it's great. 2 fairware disks for \$3.00

Hmmmm, page 3 already. I better get out of here. I don't want the editor getting mad at me for running on so much. I have lots more to tell you about next month. A least 3 or 4 more fairware disks are in my hands. Also, Tom and I have started working on disks 171+. We'll make the listing available as a pullout from the newsletter. That's if the editor will let me. Maybe I'll offer him my wife for a few hours. Naa, she'd never go for it.

One final note before I get out of here. My good friend Bill Hughes has decided it's time to throw in the hat. Copying disks and mailing out orders is taking away from his family life too much. I know how that goes. Bill will be available to help at the meetings. What I need is someone to take his place copying and filling orders. Having Tom and Bill close to me is a real asset. The turn around time for orders is short and getting software to them is easy. Tom and Bill work together so they can coordinate their efforts better. Tom handles the numbered disk orders and Bill takes care of the Fairware and 9640 stuff. If someone out there would like to help me with the library, I could really use your help. It is almost impossible for me to add disks to the library, do this article, fill orders, copy disks for the meeting plus publish the newsletter. Tom and I can't do it with just the 2 of us either. We'll need 1 maybe even 2 people to help us on a permanent basis. If you're interested in getting a copy of the library in exchange for some work, please let me know right away. I can use all the help I can get. We don't want to start falling behind anywhere. You should all have my P.O. number. If you'd like to call and discuss it, my number is 219 659-5628. I work straight nights, so, try to call during the day. The closer you are to me the better. I'm in the Northwest Indiana area. Your library and Tom and myself need you.

OK, that about does it for me. I hope everyone had a great turkey day. Christmas and the S word are right around the corner. It seems funny saying this on Nov. 15th but Merry Christmas everyone. I won't be typing to you till January. See all you locals at the Dec. 3rd meeting. Till then T.T.F.N

GENEVE SUPPORT ARTICLE

Howdy Doody there, sports fans!!! Did you make it to the Faire??? If you didn't then you missed what was without a doubt the biggest all TI computer show that there ever has been, ANYWHERE! It was really nice. Special kudos to Marcy Brun, the executive board's secretary, who did a super, great job as this year's Faire chairperson. It was Marcy's tremendous sacrifices that made this year's Faire a success. The Faire was big and smooth! It also ran without a hitch, and it proved that there is still both life and interest in our lowly TI, regardless of what hostile predictions you may hear. Yes, the TI is not only going strong, it is looking even better each year. You may remember how Dave Wakely, in a former column of his, asked the rhetorical question, of would you rather have your TI, as it is today, without the support of the parent company, or as it was, with the full support of the parent company? The obvious answer, of any informed and involved TI loyalist is that we would much prefer the machine of today, as our lowly "TOY-99" is a much more powerful machine, due to the availability of more sophisticated software and hardware, which has never existed, before, for our beloved machine. The special significance of this year's Faire was the emergence of even more sophisticated and useful software and hardware. In other words, things are going quite well, here in the "orphanage."

BTW (in Big Bob Demeter's Modern Dictionary of BBS Terminology and Linguistics, BTW means By The Way), by now are you asking yourselves why is old Krome Dome talking about the great and beloved "TOY-99?" Isn't this supposed to be a Geneve support article? Yes, indeed, sports fans, this IS a Geneve support article, but I just want to make it clear that though I use my Genny exclusively, now, I still have no desire to see the demise of our beloved 4A. It is the foundation of our community, and it is still a useful machine. I shall therefore continue, both publicly and privately, to support it. Now that I have made that important declaration, I will talk about what this most current Chicago Area Users' Group's Annual TI Faire meant to Geneve:

This year's Faire was most important for Geneve because it saw the emergence of software and hardware which will continue to make the 9640 into the machine that we Geneve users have envisioned. In fact, I purchased more software, on that one day, than I have ever purchased at any one time, ever before, in my whole life, and I have no regrets. Due to my heavy work schedule, I have not been able to even open any of it, and I doubt that I will have time before my Winter Solstice-Christmas-Chanukah Vacation. After that time, I hope to report to you on all of the goodies that I picked up. At this time, let us go through some of the goodies in

Krome Dome's new bag of tricks:

For copying and formatting disks, I just had to pick up Mike Dodd's Hypercopy, as I have been missing the use of fine copy programs such as TURBOCOPY, QUICKCOPY, etc. Not being able to use programs, such as these has often made me feel that using my Genny was a step backwards, and, in a way, this has more or less been true. Here, please allow me a slight digression:

I will never forget when I first started using my Genny. (In order for one to fully realize what a shock it was for me, when I started to use my Genny, one must understand the kind of system I had become accustomed to using. I had, in my p.e. box, the following cards: my expansion card, a 256K Horizon RAM disk, a TI RS232, a TI disk controller card, two Teac double sided, double density drives, a Myarc 512K memory/RAM card, and a TI p-Code card. Outside of my p.e. box, I had a Navarrone "widget," my speech synthesizer, an Epson MX-80 printer, a TI monitor, and a super cart, which was a present from my good friend, Mr. Al ["The Magnificent Stumper"] Stump. On my RAM disks, I was running Futura Mail Files, Funnel Writer, TI Artist, Mass Transfer, Fast Terminal, Disk Manager 1000, Tunnels of Doom, and a plethora of games and utilities that were available to me with the press of a single key, or maybe three key strokes, at the most. Now, this, to me, was a sexy system that could easily stand up to the average clone configuration, as it was both faster and easier to use than the average, run-of-the-mill "clone." Now, unless you have actually used a TI system, with this configuration, you will never understand what a shock and a "bring-down" it was to start dealing with my 9640.)

To begin, it was something of a shock to be burdened with the imposition of having to actually LOAD my DOS! In fact, I never really realized, until I started using a special ROS (RAM disk Operating System), with my HRD (Horizon RAM Disk), that our TI even had an operating system and that that TI's operating system is provided for us on a GROM chip. Anyway, the hassle of having to actually load my DOS was, for me a real step backwards. Next, I was unable to use any of the above mentioned cards, with the exception of the TI RS232 and disk controller cards. This was a very serious set-back, but what was even worse was the fact that most of the software, that I was using, was no longer usable, with my Genny. It was almost as bad as if I had gone crazy and gone out and gotten myself a mere "clone!" In other words, it was almost as if I had gone back to "square #1."

Fortunately, in spite of my initial chagrin, things quickly improved for the Geneve users/owners, in the TI community. The first thing that happened was that an innovative programmer named Jim Schroeder, in Milwaukee, Wisconsin, came

up with a software patch, named HDROS, that allows us to use our Horizon RAM disks with our Geneves. (Because of this program, I am now able to "boot" my DOS, AUTOEXEC file, various "batch" files, and load my GPL files, MY-Word, and miscellaneous utility files in five seconds or less!) He also modified John Johnson's great menu program, for the HRD, which will now run on a Geneve. And, over the first year of Geneve's life, Jim has come up with a nice bunch of other new programs, for Geneve, most of which run entirely in M-DOS. The whole Geneve family of users/owners, therefore, owes a debt of gratitude to Jim Schroeder.

The next event, in the on-going trials and tribulations of Genny, was the emergence of a plethora of patches and software modifications, which would allow the most popular and significant programs, in the TI community, to be run on Geneve. We saw a Microsoft Multiplan that was significantly improved over what it was, when it was run on a 4A; it was in 80 columns, it had a larger file buffer, for the storage of larger spread sheets, it crunched numbers significantly faster than on a 4A, and it had a cursor that almost "flew" across the screen! We saw the emergence of a program called MY-Word, that looked and acted like TI-Writer, but it was in 80 columns and did so much more than TI-Writer was ever capable of doing. (The reason for this is that it incorporated completely new and different assembly code.) We saw the emergence of a version of PR BASE that will run on both the 4A and Geneve. We saw the birth of a patch for TI Artist which will not only run on Geneve, but which also includes a driver for the Myarc Geneve Mouse. In addition to this, if found that virtually all of the cartridges, that I had grown so used to using, would either run immediately, when dumped to disk, using the CSAVE program, or patches had emerged that would allow them to run. I therefore found that I could again use my LOGO II, VIDEO CHESS, and my PLATO, without locking up my computer. As the first complete year of Geneve's life moved on, things really started to look good, as far as a real compatibility with older TI-99/4A software was concerned. In fact, for me, there are now no significant or important programs, which I used to use, with my 4A, that I am now unable to use with my Genny, period. I do realize that there are still some programs or cartridges, in the TI community which are still incompatible with Genny, but they are not programs or cartridges that I happen to be using. (Here, I must admit that I am not much on games or the many game cartridges that exist for the 4A.) This is because the programmers in the TI community have come to the aid of the 4A's younger sister and have written whatever modifications were necessary to run the most popular programs. It is therefore my opinion that those programs which still won't run are probably those which do not enjoy wide or universal usage, and I am confident that if it is found that there is a wide ranging and popular desire to use some of these still incompatible programs, appropriate

patches can and will be created. And, as this most recent TI Faire has shown us, in the case of those programs which cannot be modified, new and better programs will emerge, which will do whatever tasks a Geneve user/owner may want to have done. The bottom line, to me, from all of this, is that Geneve truly is a TI-99/4A compatible machine, and this is the reality that we Geneve users/owners have been experiencing. For those who have not been experiencing this, you have long winded articles, like this one, to help you out! Another publication, should also be considered as a primary source for information and support of the 9640; I am speaking of MICROpendium Magazine. Any user/owner of a Geneve really should have a subscription to this fine publication. If you don't, you are cutting yourself off from what is probably the most important source of information regarding this machine. (The same is pretty much true regarding the 4A.)

Now, after that slight digression, let us see what good old Krome Dome has managed to pick up at this year's Faire, in addition to Hypercopy. (BTW, Hypercopy is a program written by Mike Dodd, who writes a fine monthly article, in the above mentioned publication, MICROpendium. This new program is not a track copier, but it is just as fast. Anyway, more about it after I have had the chance to use it and play with it a bit.) I also picked up from Asgard Software a game called Oliver's Twist. It was written by a very friendly young lady, who was present at the Asgard booth, named Mickey Schmitt. This game is supposed to run from the ADVENTURE module, and as this particular module is totally compatible with Geneve, I thought that I would like to try a new game. While I was also at the Asgard booth, I picked up Cynthia Becker's MY-Art Coloring Book. I purchased this program, sight unseen, because of my admiration of the work which I have seen, of Miss Becker's, which was created using the Geneve program, MY-Art. If this program is anything like some of the really nice creations that have come from Miss Becker's mouse, then I expect to be in for a very nice treat.

Other programs, which I purchased, while at the Asgard Software booth, are as follow: Beyond Video Chess: This program allows one to save and load games to and from a diskette, print out a game to an Epson-compatible printer, list the moves you have made to a printer, and use one or more joysticks to move pieces on the game board. CALENDAR MAKER 99: This program was very well reviewed in a back issue of MICROpendium. It will generate a calendar, for any month of any year, with user determined graphics.)

While I was at the Genial Computerware booth, I had the pleasure of meeting Mr. Paul Charlton. When he found that I was a registered owner/purchaser of his GIF2 program, I was allowed to purchase at half-price (\$15.00), his new program

Picture Transfer. This program is the off-spring of Paul's earlier GIF2 program, and it is the program that he promised that would be a full implementation of what he thought that a good graphics display program should be. This program will load files in GIF, GraphX, RLE, TI Artist, or MY-Art formats. (Since I don't see J. Peter Hoddie's MaxFlix format listed, on the front of the package, I am automatically going to assume that the MaxFlix format can be utilized merely by converting them to MY-Art format, which the MaxFlix Program will easily do.) They can then be converted (saved out) to either MY-Art or GIF format, and they can be put into "slide show" type displays. I think that this means that I will now be able to use and play with art which was created in TI Artist format! (Here is another example of increased utility and compatibility with pre-existing software.)

Since I am talking about graphic programs, I should mention MacFlix, from Genial Computerware, by J. Peter Hoddie. Though I purchased this program at the Faire in Seattle, Washington, last September, I have only recently been able to work with it. This program takes pictures which were created on a MacIntosh Computer, and allows the user of a 9640 or a 4A to display them on a screen or print them out. It also allows the user to convert pictures in this format into MY-Art format. I have been playing with the sample pictures which were included in the package; I have been taking some of them, converting them into MY-Art format, and then loading them into MY-Art, where I have been coloring them, as they are all black and white. I find the pictures to be most interesting and of very high resolution. I am impressed with this program. It is something that I like to play with, when I feel the need to relax and unwind. I might also mention that there are many of these picture files available to subscribers of most of the various information services (GENIE, The Source, CompuServe, Delphi, etc.). They can also be found on most MacIntosh bbs's. It is possible for the 4A or Geneve user to download more of these pictures and use them, if he/she has the proper terminal emulator software. The only thing that we should be aware of is that we cannot use any pictures which are compressed or "archived," by an archiving program which was designed to be run on a MacIntosh. I was also very happy to find that the Genial Computerware booth was selling two sets, of four disks each, of MacFlix pictures. I purchased both of them. I have only had time to look at one disk, out of the eight. I then dumped two of the pictures to my Epson printer. Here, I must admit that I have never had a picture of greater resolution, run from my printer. It looks pretty much like a real photograph. I was very impressed. Therefore, if you are into art and/or graphics programs, I can fully recommend this program to you. And, before I leave the subject of graphics and art programs, I would like to mention that I purchased a copy of TI Artist that has been modified to run on a Genny. I just want to see what the program would look

and how it would run, if it had been modified by its author. More on this one later.

The only other stuff that I got was a copy of version 2.3 of Charles Earl's fine terminal emulator program, TELCO. As I am a registered purchaser of this program, I received it at no cost. I also received a TI Net Help Disk. Though this didn't cost me anything, I just thought that I might mention it.

I also did get one piece of hardware; I purchased a switch box that is also a surge/spike protector. I also purchased a pair of M.O.V.'s, which I intend to install for the purpose of protecting the neutral and ground lines of my power lines, which are connected to my computer system. The idea of this purchase came from a long and heavy discussion on Hank Ellermann's fine bbs, The Chicago Connection [(312)453-7831]. A lot of input came from users, in the Chicago area, who have suffered damage to their systems, due to lightening strikes, especially to their telephone lines. I feel that I have too much invested to not have adequate protection against such common occurrences as lightening strikes and other sources of surges or spikes. I will share with you some of my thinking, on this subject, in my next article, but before I sign off, I would like to share with you some hardware information, which I received from Jack Riley, of Myarc: There is a company called MEI/Micro Center. Their "800" number is (800)634-3478. They have EMI/RFI/Noise/Surge protection units at a very good price. The cost of their model #PP104 is only \$19.95. A similar one, which also has protection for your modem is \$24.95; it is model #PP106. These prices are good only until November 30, 1988, but they seem to be excellent buys. (BTW, there is a \$1.00 charge for shipping on each unit.)

Well, sports fans, I guess that old Krome Dome Jonz has worn out his welcome again, so I had better sign off before Big Bob Demeter decides to "sweep" me off the page. Next month, I would like to talk about the important things which are coming out of Myarc, which support both the 4A and Geneve. Until then, don't eat too much turkey. For me, I intend on inviting my friend The Mighty Buzzard for Thanksgiving. That will then make me the only vegetarian in the whole United States who had a turkey for Thanksgiving!!! So until the next time,

enditenditenditenditenditenditenditenditenditendit

BITMAPS 4

BY BOB DEMETER

OK, this month we're gonna end it. If we carry on too much longer, you'll only get bored. Let's start off with a little review of the first 3 parts.

Let's review the sector names. Sector 0 is called the Bit Map. This is because it keeps track of all the sectors on the disk. Sector 1 is the Directory Link Map. This sector points to all the FDR's and keeps the disk catalog in alphabetical order. The next 32 sectors are called the File Directory Records (FDR). These are numbered in hex from 02 to 21 or decimal from 2 to 33. The FDR's contain information about the individual filenames. Information contained includes: Filename, File Format, Record Length, Protection, File Length, Starting Sector and Number of Offsets. The rest of the disk contains the files themselves. This setup is for disks that are formatted in the standard method. Some Data disks, Plato disks and many Protected disks do NOT follow this scheme.

Let's move on and review our number systems. Remember, we should know at least the Basic 3. First there is the Binary System. This is Base 2. So called because there are only 2 numbers in it, 0 and 1. A zero means a number is turned off or not used. It is placed there to take up a number position. A one means the number is on or used. Numbers are arranged from right to left starting with the number 1. Each number thereafter is a multiple of 2. This will provide us with a decimal representation. So, if you count number positions from right to left, you would get 1,2,4,8,16,32,64,128,256,etc. Another way of looking at it would be $1 \times 2 = 2$, $2 \times 2 = 4$, $4 \times 2 = 8$, $8 \times 2 = 16$, $16 \times 2 = 32$, $32 \times 2 = 64$, $64 \times 2 = 128$, $128 \times 2 = 256$, etc. Looking at the binary number 1010, you see we are using positions 1,2,4,8. The 1 and 4 are turned off or not used. So, we are left with the 2 and 8. Adding these together we get $8 + 2 = 10$. 1010 is the binary equivalent of the decimal number 10.

Speaking of Decimal, that is our next number system. This is the number system we were all brought up on. It consists of 10 numbers ranging from 0 to 9. As with the Binary example, we arrange our numbers from right to left each new position being a multiple of 10. 0 , $1 \times 10 = 10$, $10 \times 10 = 100$, $100 \times 10 = 1000$ and so on. We all know how decimal (Base 10) works, so I won't dwell on it any longer.

The last of the Basic 3 is Hexidecimal or Base 16. Hex consists of 16 numbers per column. They range from 0 to F. Decimal numbers 0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15 are represented as 0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F. As with the other 2 number bases, once we get to the top of a column, we

start it back at 0 and add a 1 to the column to the left. Thus we get 10,11,12,13,14,15,16,17,18,19,1A,1B,1C,1D,1E,1F. Once the right column has again reached the top number, we again reset it to zero. We then advance the left column by 1 number. Again, each column starts off as a multiple of 16. 0 , $1 \times 16 = 16$, $16 \times 16 = 256$ etc. Confusing? Let's spend 1 or 2 more sentences here. Then we'll move. I don't want to loose anyone. Then again, I don't want to bore you. Let's say we have 4 columns of Hex numbers. Each column can contain numbers from 0 to A. The column furthest to the right counts from 0 to F representing decimal 0 to 15. The column to it's left counts from 0 to F too. BUT, it is a multiple of 16. It's first number is equal to 16×1 or decimal 16. The column to it's left again counts from 0 to F. This time it's first number is equal to 16×16 or decimal 256. The 4th column would begin with 16×256 or decimal 4096. OK, I think we all got it now, let's move on.

Retrieving a lot text file is easy if you know what you're looking for. If the disk will catalog, you're in good shape. Find your lost filename and count it's position in the alphabetical listing. Go to sector 1. Sector 1 may look like this 0002 0004 0006 0003 0005 0008 0007 0009. This is the sector number of each FDR. If your filename was the 4th one on the list, your FDR is on sector 3. We got that by counting groups of 4 from left to right. Next we go to sector 3. If you are in ASCII mode, you will be able to read the filename on the top line of this sector. Using the information provided in previous articles, you should be able to read the sector. You should also be able to determine what is missing. Is the format correct (byte 0C)? Is byte 0F (file length) correct? Is there even a number there? Is there info to tell where the file starts? Has the sector offset be recorded? All these things can cause the file to be lost. By correcting this FDR sector, your text file can again be loaded.

How to find your file. If you know how your file started and your sector editor has a Find String feature, you're all set. Do a Find String for the beginning sentence. Mark that sector down when found. If you know how it ends, do a Find String for that too. Write down that sector. Now read every sector between the first and last sector you wrote down. If all the sectors contain your file, you're set. Count the number of sectors from start to finish. See to it that this info is provided in the FDR. That would be bytes 0F and 1C to 1F. Now go to the last sector of your file. Count how many bytes are actually being used by that sector. Convert it to Hex and place that number in >10 on your FDR sector. Go over your FDR sector and make sure all necessary info is provided. Sectors that are usually used are: 0C,0D,0E,0F,10,11,12,13,1C,1D,1E,1F. There will be more if the file is fractured.

If while reading sectors, we see another file before yours has ended, your file is fractured. Keep track of where your file left off. Read each file (unless you can do a Find String for the missing section) till you find you file again. Write down what sector it starts at. Keep reading till you

find the end. Write this down. Go back to your FDR sector and make corrections. Use info. provided in previous articles.

Example: Our file starts at sector >22. We read it up to and including sector >40. At sector >41 we find another file. We keep looking. At sector >60 we pick up on our file again. We read it to the end which is on sector >80. We count how many bytes are used on sector >80. We find there are 128. Now it's time for some FDR work. From sector >22 to >40 is 31 sectors. From >60 to >80 is 33 sectors. $33 + 31 = 64$. Our file is 64 sectors long. In hex that would be 40. The offset from >22 is 30. The offset from >60 is 32. Converting 30 and 32 to hex is 1E and 20 respectively.

Editing our FDR we would do this: Bytes 0C0D would read 8001 to indicate a DV file. Bytes 0E0F would read 0040 to indicate we are using 64 sectors. Byte 10 would read 80 to reflect the 128 bytes used in the last sector. Byte 11 reads 50 to show we have 80 bytes per record. Combining this with 0C we get our D/V 80 file indicator. Bytes 1213 should read 4000. This shows we are using 64 sectors. Byte 1C should read 22. This is our starting sector. Now we get into the fracture info. Let's look at the sector and decipher it.

```
00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
---- FILE NAME GOES HERE ---- 00 00 80 01 00 40
```

```
10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
80 50 40 00 00 00 00 00 00 00 00 00 00 22 E0 01 60
```

```
20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
00 02 00 00 00 00 00 00 00 00 00 00 00 00 00 00
```

If we read the least significant bit of 1D and byte 1C we get 022. This our starting sector. Now read byte 1E and most significant bit of 1D. We get 01E. This is our first offset of 30. Least significant bit of 20 and byte 1F read 060. This is the starting sector of the fracture. Byte 21 and MSB of 20 read 020. This is the fracture offset of 32. Using this info., you should be able to retrieve any lost file that has not been over written. There are 2 things to ALWAYS remember.

- 1 - NEVER WRITE TO A DISK WITH A LOST FILE UNLESS YOU'RE SURE YOU WILL NOT OVER WRITE THE LOST FILE.
- 2 - ALWAYS MAKE A COPY OF THE ORIGINAL SECTOR BEFORE WRITING TO IT. This way you can always put it back to it's original form if you make a mistake.

On occasion, I have found that after making corrections to the FDR, the file still is not correct. After fixing one of Don Jones' files, TIW tried to load more then the specified amount of sectors. If I remember correctly, even copying the file to another disk gave me the same problem. Here's what I did to fix that. Using John Birdwell's DISK UTILITIES 4.12 I cataloged Don's disk. I used the View

feature to look at the file. John's DSKU displays the line numbers as they scroll up the screen. When I reached the end of Don's file, I wrote the line number down. I then went to TIW and loaded Don's file by line number. Here's how it's done.

```
LF (load file) (prompt) 1 240 DSK1.DONFILE.
```

This loads in lines 1 thru 240 from the filename DONFILE. I read the file to make sure it was all there. Then I saved it. Everything worked out great.

Fixing Blown Sector Zeros - Copy a sector zero from another disk. This will allow you to catalog your bad disk. Copy all the files to another disk. No files are lost and you can re-format the bad disk.

Fixing a Bad Sector 1 - Go to sector 1 and write this to it:

```
0002 0003 0004 0005 0006 0007 0008 0009
000A 000B 000C 000D 000E 000F 0010 0011
0012 0013 0014 0015 0016 0017 0018 0019
001A 001B 001C 001D 001E 001F 0020 0021
```

Now catalog the disk. Your filenames will be displayed but not in alphabetical order. There may be other garbage displayed too. Write your filenames down in ABC order along with their position #. If you only have 7 filenames, you will only use FDR's 0002 - 0008. So, you will not need to use all the way to 0021. If the filename that starts with A is in position 6, it will be FDR 0007. Put this where the 0002 is in our example. Sector 1 will usually never have all the FDR's in chronological order. Bytes that are unused will be zero. Don't want anyone to catalog your disk? Make bytes 0001 to read 0000. Then start your FDR list. Programs will execute but filenames will not show when the disk is cataloged.

Using the information I've provided you, I've been able to repair many disks and retrieve many lost files. Over the course of time, I have been able to figure things out. Get yourselves a disk to play with. Read each sector. Soon things will all fall together. The more you play the more you'll learn. I hope you've enjoyed reading these articles as much as I've enjoyed writing them. I also hope that I was able to help someone out there learn more about sector editing. If I can be of assistance to anyone, feel free to contact me.

-Bob-

This suggestion or bit of advice was offered by Mike Polonsky. If you would like to make room on your computer table, move the P Box to the floor. Remove your drives from the PEB. Set them up as external drives and keep them near your computer. Place the PEB out of the way somewhere. Radio Shack sells 16 pin DIP switches. These can be used as jumpers to select each drive emulation. I would imagine that if you had that cable to "give the big foot the boot", you could get rid of that too. Very good idea, Mike. Thanks. -bd

TECH TALK by mike maksimik

Over the summer, I had the chance to collect some new ideas on programming. There are a few tricks, tips and creations all ready to be made known. For starters, I'd like to say, I had a great summer.

Project #1: Many of you know that I interfaced a mouse to my TI. No, it wasn't that expensive Mechatronics mouse, but the inexpensive Radio Shack color mouse. This mouse is a simple potentiometer mouse with one or two buttons, depending on the model, and costing in the \$20.00-\$40.00 range. One component in my system is a clock card. This particular card is a relatively rare one called FIRST ADE and is a clock/analog-to-digital converter/digital i/o card. The devices you can interface to this card are endless, but I chose a mouse, because TI-Artist allows a custom DSR for any device to be created for that program. First, I discovered how to interface the mouse to the analog channels and then how to quickly scan the channels for input. I added some small capacitors to compensate for a 'divider effect' which caused the potentiometers to jump from the negative side over zero to the positive side. This left a nasty gap but adding 4.7 microfarad electrolytic capacitors between analog input and analog ground made the transition smoother. Tantalums were not working, they took too long to stabilize--this caused the mouse to gain a 'too fluid' motion. Eventually I will reduce them to the limit where the response is the quickest. Perhaps the ones in the super sketch cartridge are the ones to use??!! Well, when I read the article appearing in may or june micropendium, the author didn't give the mouse a good chance, considering the DSR that INSCEBOT provided for the super sketch cartridge is horrendously long and redundant. Perhaps his loop was too long, and as a result, the sampling rate of the mouse went down. This is why the motion was choppy. I implore you, dear readers, this project is disgustingly simple, and I URGE you to try it. Very soon, I see in the future an ICON based op system, not unlike MEGALOAD (my regards to Jim Derk, author) which will rely primarily on mouse control. Besides, TI Artist will never be the same! I personally will NEVER go back to joystick control again.

Now, on to other things. I recently took a systems programming class at school, and got a great idea on using the interrupt routine to control a multitasking environment in the TI. You know that when interrupts are enabled, such as the ti basic and EX basic environments, the VDP chip (TMS9918A video display processor) acts as a cute little 60hz interrupt timer, and will interrupt the running program. The interrupt routine then resets that condition, then does some minor things like cassette timer update, sound chip update, peripheral interrupt check, and then it looks at quit key if enabled, and any other possible system interrupt. After all of that (except peripheral interrupt) the routine branches to

the user interrupt routine. To get multitasking to work, this routine must reside in a "safe" area, such as a supercart, or in low memory expansion below the free address pointers.

What this routine will do is this: maintain a linked list of workspace pointers, status registers, and return addresses for the number of routines that are loaded into memory. This routine then, on each interrupt, saves the SAVED ws, pc, and st in the appropriate place in the linked list. Then, the interrupt workspace r13, r14, and r15 are loaded with the new values next in the linked list. When the RTWP from the interrupt occurs, the process that executes now is the next one in the linked list. 1/60th of a second later, this repeats itself and so on until the computer looks like several things are going on at once. There is a simple way to keep the system intact. First, the KERNAL which does the task switching must do a LIM1 0 instruction so it doesn't get interrupted. Each process which wishes to write to VDP must do it all at once (using LIM1 0) or keep track of the VDP address it wants in a WS register. Sound processing must occur from VDP so mutual exclusion must be practiced. The kernal handles sound, and each routine must request for sound. The same goes for disk I/O. I have four drives, and 4 rs232 ports. Wouldn't it be nice to assign each user his/her own drive? It can be done. The kernal will only read a sector at a time for each user, and RAMDISK usage makes the access even faster. The next consideration is memory. Well, I am sure there is a RAMDISK out there that can be used as a bank-switched upper 24k portion 4 times over. The kernal could bank switch at the same time it changes the RTWP information. The RS232 interrupt routines can be used to provide each user with virtually unlimited keyboard queue. Imagine a 5th and 6th task running at the same time, idling until activated as print spoolers. The 'nice' terminal emulators use the same method to print incoming input to a parallel printer, so why can't this system? Finally, restrictions on the user's programs, much like those found on a VAX or IBM PC must be imposed, such as I/O routines, memory usage, etc. The kernal, in order to be fast, can not check for these so it is up to the programmer to keep his/her program in line. I hope some of you can grasp what this means. It may just be a nice DEMO to show off, but imagine this:

- 4 terminals or modems on line connected to all four rs232 ports;
- 2 parallel printers.
- 4 disk drives (80 track MYARC of course)
- 2 hard drives
- 2 RAM expansion cards at 512k each in 4 banks switchable by CRU operations.
- supercart or supercart II with 32k console
- exp. box

You may be thinking, DREAM ON MIKE, but this would be SOMETHING! As programmers are preparing to leave the 99/4a and into the 9640, just ask Chris Bobbitt what I am talking about. Imagine 20 users on a 20mhz genny with full memory on board, and a myarc hard/floppy card. By now, this software is a reality and it will be up to the programmers to support such a new environment. I am sure we wouldn't want to go that far with our 99/4A's, but we can do a little less and still make an impression:

Who will be the first to create a two-user BBS (HANK?) where both users may be online, upload, download, etc. and still think they were the only user online? I could just imagine how many 'long lost' callers would call in again, ignoring their skyrocketing phone bill?

Multiplan in one window and TI-writer in another?

24 simultaneous clocks on the screen (maybe more) demonstrating the times in Greenwich, Moscow, Peking, Chicago, Los Angeles, Bonn, etc.

(with alarms?)

a nice print queue for extended basic users (I've seen too many load-interrupt screen dumps!)

and the list goes on and on.....

Well, that's some TECH food for thought. It's just something that's been fermenting in my brain for some time. Hey, as long as we keep thinking about things like this, will the TI ever die??

Other notes--it is possible to access the RS232 directly, even the control lines. You don't even have to turn on the ROM in the card. You can access the TMS 9902 UART directly through CRU operations, while accessing another card. This is a great idea for RAMDISK programmers who want to use an extra 8k of RAM in their printer/modem access programs or routines.

A note on 3 1/2 disk drives--I own a mitsubishi and a toshiba. Both are 720k and work beautifully. However, the Myarc disk manager must have a bug in it with the sector copy/file copy routines, because it turns up every disk I own has an error! This does not happen with the Birdwell DSKU for the myarc controller version 4.13m. I encourage use of this program, although I only have had the pleasure of using it a few times. It is fairware and should be given the utmost support. If there were only more John Birdwell's in this TI world!

The drives do work at 720k with the p-system, to those users who wish to do so, simply execute a UNITREAD of the first 255 bytes of the 80 track drive you have upon powerup. Don't do this on 40-track drives. Essentially, it tells the p-system that that drive is 80 track, 720k, 1440 512-byte blocks. It works without error.

The toshiba is VERY quiet with the Myarc controller, the mitsubishi is noisy. Both can read each other fine. Oh the joys of having 2.16 megabytes online!!

Megaload, that great program by Jim Derk, can be modified to load EVERYTHING from a 3 1/2 drive, including ti-writer and formatter. Just use a memory editor to change the DSK2.EDITA1 etc. to DSK3.EDITA1 etc. and so on, and use the fctn-8 key to change it so it custom loads everything from 3 1/2 drive.

Name the disk TIMP if you have multiplan, and put your Multiplan files on it. Then stuff it with your favorite games and such. At the press of a key, and with ONE single disk, you could have a majority of your software needs at the push of a button. NO more lost disks. NO more hundreds of program disk to search through. And archiving was never so much fun. You can pack 8 or more ss/sd disks on a 3 1/2, in archive format, for good safe storage. Add your own ideas to the list.

Here's another idea to PHREAK your friends...get one of those prototyping boards, and just for kicks, write a small routine which executes on powerup (give it a header, it's going on an EPROM in the BOX) and asks for a security password, which of course, only you know, and your little brother/sister/son/daughter/etc. does NOT know. If the correct password is entered, then the card returns the powerup routine to the console. If not, it just keeps asking for the correct password. Make it as long or as short as you want--you could even use the ctrl-and fctn-keys! First, put it in the supercart to try it out, and then use an eprommer or battery backed up RAM on the proto card to store your powerup routine. This 'key' can mean ultimate security! However, you always have the smart/nasty brat who opens the BOX and pulls out every other card until it works--This project isn't really involved, and you could even add a few things to the card. For example, how about a high speed cassette DSR that can save 19.2k in one second? or faster? with checksums? It's perfect for inexpensive hard disk backup, or even archiving files. ANY DSR can be placed in the expansion box, and ALL of your software will recognize it! Jan Janowski had been asking about a supercart BASIC program save/load etc. routine, just like the minimem's. Well, this can be done too. In addition to DSR's, interrupt routines can be put in this card's ROM as well. How about a nice peripher interrupt handler that can complement the multitasking environment I described above? It can make

absolute SURE that no characters get lost or confused in a 4-user file transfer. And if you like BASIC or EXTENDED BASIC, well, as you know, and card can have CALLS which expand the power of the BASICS and can give you features only owners of RAMDISKS can enjoy. You can create as many CALLS as you want--as long as they fit into 8k or at least they bank switch the card for another page of 8k. A card like this, with some knowledge of assembly language programming, can be of a great advantage. I know of one card that may be out there--Morning Star's memory expansion card. And of course, the simple prototyping boards programmers have etched. In the end, there is only one feasible way to give TI users more power and versatility--and that is to expand into the BOX. 80 column cards, RAMdisks, hard drive controllers, clock cards, etc. This is where it's at! A modem card, perhaps? Soft-cards filled with your favorite and most frequently used programs--the rest is up to you TECHIES out there! Don't just impress your friends, impress yourself! At the FAIRE last year, it was discussed at the social--programmers have the best advantage over users in the TI community. I feel that no other computer has gotten this far, nor will they ever unless they go through the same circumstances that TI did. As we approach BLACK FRIDAY, let us all remember, that it's not that bad, nor is it black. It should be called the-witch-is-gone friday, for where would we be now, if we were still the puppets of TI, as IBM compatible users are of the software industry? I am a programmer, and my career will be programming. The TI users I will support with freeware, but the IBM users will be charged full price--after all, there is no chance in the world that the average IBM user could create a device driver or mouse or even a new operating system--they'd rather PAY for it. TI users are different, because the computer community has never before seen such an informed and knowledgeable group of users/programmers. Face it, how many of you know extended BASIC to the point that you could write a rather complex filing program for your own personal use? The average IBM user CAN'T do even that. They do just what they are told by the manual. Nothing else. I know it firsthand. I have to use a clone at school. I prefer my TI. Personally, if you take away the 8086's segment registers, you have another 64k computer. In fact, this made me realize something about the 9900's register system.

R13, R14, and R15 are used primarily for BLWP instructions. R12 is reserved for CRU operations. R11 is used for the BL and RT instructions. If we wanted to, we could use R10 as our memory select register. First, this requires some knowledge of computer decode logic. We would need to create a 16-bit "register" somewhere in RAM, a read/write register, that is decoded to indicate the current memory bank. This register can be located on a peripheral card, like the MBP decodes an address in the sound area for its analog-to-digital converter. This register would

bank-switch a page of memory. How many? well, 16 bits is a lot, but I don't think we need to use all of them. Perhaps only 2 bits, for 4 pages of 24 k, or 8 bits for 255 pages of 24k, or whatever you like. Then, the program that wishes to take advantage of this capability could just relocate its WP using LWPI into that area, (how about between >8100 and >81FF) and then use R10 as the segment register. a simple LI instruction can switch the memory page instantly. In this way, a program can take advantage of TONS of memory, with very little overhead. The program shouldn't get confused, since it's running in a protected area of memory, and it can bank in the routines/data it needs. This means HUGE programs can reside in memory, and no DSR is necessary to handle it. And if the select register, along with some RAM is located in >8100 to >81FF, it shouldn't disturb the operating system either.

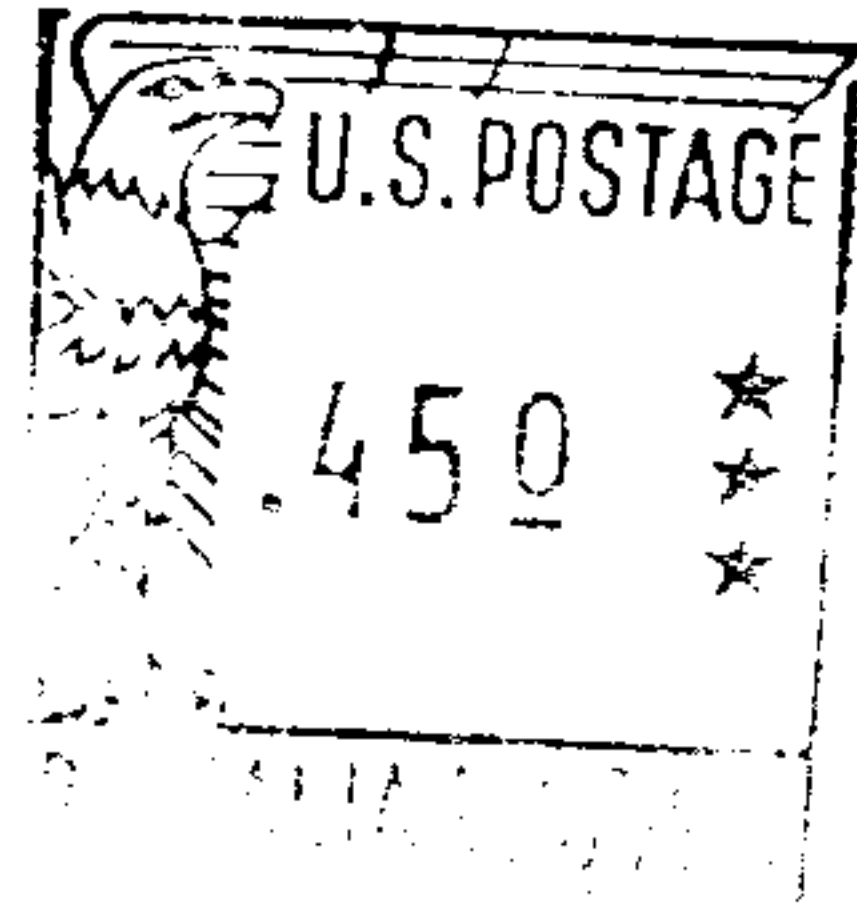
That's enough for now. I don't want to overload your brains. I would like you to answer me on any of these topics--I love a challenge. Who knows, this column may be the birth of some great software!



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First Class Mail



Notes from the Editor...

Well, it looks like we pulled off another Chicago perfect Faire. The 6th annual Faire was a huge success. I'm ready to do it all over again. It seems as though everyone that attended had a great Time.

Those of you that pulled together as a team should feel very proud of yourselves. The smoothness of the Faire was a delight to see. The group was hitting on all 8 that day. It was good to see some strange faces offering to help. Thank you all for a great show.

Marcy has indeed offered and shown us her talents. You are to be commended for your great work. The entire membership wishes to thank you for your many sacrifices and hard work. It has truly paid off in the long run. Congratulations and thank you for a great Faire. (Care to try it again next year)?

Remember that elections will take place at the December meeting. If you haven't mailed in your ballot, bring it with you. Don Jones and Nick Iacovelli are running for President. Hank Ellermann is running for Vice or Vice President. Marcy Brun is running for Secretary and Oscar Bretana is running for Treasurer. Write-in's are allowed.

Also, remember this is our swap meet. Bring in your used equipment to sell. Bring some money for buying too.